

14 August 2001

MEMORANDUM FOR Nashville District Resource Managers

SUBJECT: Criteria for Design and Construction of Roadways,
Parking Areas, and Launching Ramps

1. References:

- a. EM 1110-1-400, Recreation Planning and Design Criteria, JUL 87.
- b. EM 1110-2-410, Design of Recreation Areas and Facilities Access and Circulation, DEC 82.
- c. U.S. Army Corps of Engineers Recreation Facility and Customer Service Standards, DRAFT, APR 01.

2. The following criteria will be used in the design and construction of roadways, parking areas, and launching ramps on U.S. Government property under the jurisdiction of the Nashville District, Corps of Engineers.

a. Launching Ramps:

- (1) Width - Minimum launch lane width will be 16 feet for a single ramp or in 12-foot increments for multiple lane ramps.
- (2) Length - Length will be as required to maintain a 12%-17% slope from 5-year frequency pool to 4 feet below 10-year drawdown.
- (3) Surface - Permanent ramps will be scored concrete or pre-cast concrete planks.
- (4) Slope - 12% minimum, 17% maximum, 15% preferred.
- (5) Turnaround - A minimum of one no less than 75-feet in diameter for each 16-foot ramp.

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(6) Launch ramps will be designed to require a deliberate turn from the access road onto the ramp to prevent direct access to the water.

b. Adjacent Parking:

(1) Car/trailer spaces are to be a minimum of 12 feet wide by 50 feet long for 90° head-in parking and 45 feet long for 45° angle parking. Minimum width will be 25 feet for aisles. In extreme cases, 30° angle parking may be used to reduce total width of aisle and parking space to 50 feet of surface plus shoulder.

(2) A minimum of 30 car/trailer spaces is required for each 16-foot ramp or 12-foot lane, except where demand or site conditions require deviations.

(3) To meet accessibility guidelines, a minimum ratio of one car/trailer parking space conforming to the Americans With Disabilities Act Accessibility Guidelines (ADAAG) must be constructed for each 1-25 car/trailer parking spaces. For example, a 30 car/trailer parking area must contain a minimum of 2 parking spaces conforming to the ADAAG.

(4) Standard parking area grade is 1-5% and shall not exceed 10%.

(5) It is recommended that a minimum of 5 single vehicle (without a trailer) parking spaces per launch lane be provided. Single vehicle spaces, perpendicular to the roadway, will be a minimum of 25-feet in length and 10-feet in width. Parallel single vehicle parking spaces will be a minimum of 25-feet in length and 12-feet in width.

(6) A minimum ratio of one single vehicle parking space conforming to the ADAAG must be constructed for each 1-25 single vehicle parking spaces. For example, a parking area containing 5 single vehicle parking spaces must contain a minimum of 1 single vehicle parking space conforming to the ADAAG; a parking area containing 30 single vehicle parking spaces must contain a minimum of 2 single vehicle parking spaces conforming to these guidelines.

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(7) The use of pull through car/trailer spaces should be maximized (pull through parking must be angled at 45-60 degrees to traffic flow)

c. Roads:

(1) Access and circulation (2-way) roads - a minimum of 24 feet in width with 2-foot wide shoulders, minimum overhead clearance of 16 feet, and grade not to exceed 10%, except in problem areas where a maximum of 15% may be used for a short distance. All road rights-of-way requested by other Government entities will be of sufficient width to contain the roadway and related cut-and-fill slopes and drainage structures, and will in no event be less than 50 feet in width.

(2) Service roads and camping roads (1-way) - A minimum of 14 feet in width with 2-foot shoulders, minimum overhead clearance of 16 feet, and a maximum grade of 15%.

3. It is recommended that floating courtesy docks be provided at launching ramps for short term docking, loading of gear, and passenger convenience.

4. Authorization to construct launching ramps on U.S. Government property will only be granted to public entities such as federal, state, or local governments and political divisions thereof, except for within existing lease areas. Requests for authorization to construct launching ramps within existing lease areas will be reviewed on a case-by-case basis in accordance with the terms of the lease agreement.

5. All applications from federal, state or local entities for construction of roadways, parking areas, and launching ramps must include specifications on disposition of spoil where quantities exceed fill requirements, seeding of areas to control erosion, disposition of brush and trees that are cleared during construction, and drainage of the area.


6. Resource Managers will use the above criteria as a guide in

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reviewing and making recommendations on applications from
federal, state, and local entities for launching ramps, adjacent
parking, and road rights-of-way across U.S. Government property.

7. POC for this matter is Tim Dunn of the Natural Resources
Section at (615) 736-7827.


MICHAEL G. ENSCH
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CF:
OP-T-N
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